Paper No. 32

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ANTHONY P. ECCLES

Appeal No. 2001-2449
Application No. 08/637,802

ON BRIEF

Before PAK, WALTZ, and KRATZ, Administrative Patent Judges.
WALTZ, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's final rejection of claims 1 through 4, 6 through 15 and 17 through 23, which are the only claims remaining in this application. We have jurisdiction pursuant to 35 U.S.C. § 134.

According to appellant, the invention is directed to silver copper alloy compositions exhibiting superior fire scale resistance, improved work hardenability, increased cast hardening and an expanded fluidity range (Brief, page 2). Appellant states that the claims do not stand or fall together (Brief, page 3) but

fails to provide specific, substantive reasons for the separate patentability of any claims except claims 1 and 7 (Brief, page 6; Answer, page 2, ¶(7)). Accordingly, we limit our consideration to claims 1 and 7 on appeal. We note that the mere reiteration of the limitations of a dependent claim is not a substantive reason for the separate patentability thereof (e.g., see the Brief, page 11). See 37 CFR § 1.192(c)(7)(8)(1997). Illustrative independent claim 1 is reproduced below:

1. Fire scale resistant, work hardenable jewelry silver alloy compositions comprising:

0.5-5.5% by weight copper;

0.07-6% by weight of a mixture of zinc and silicon, wherein said silicon is present in the range of 0.02 to 2.0% by weight;

0.01-2.5% by weight germanium; and
at least 86% by weight silver.

The examiner has relied upon the following references as evidence of obviousness:

Bernhard et al. (Bernhard)	5,039,479	Aug. 13, 1991
Rateau et al. (Rateau) (published UK Patent Application)	2 255 348 A	Nov. 4, 1992

The claims on appeal stand rejected under 35 U.S.C. § 103(a) as unpatentable over Bernhard in view of Rateau (Answer, page 5).

We *affirm* this ground of rejection essentially for the reasons well stated by the examiner in the Answer and the reasons set forth below.

OPINION

The examiner finds that Bernhard discloses a reduced fire scale silver-copper alloy where the amounts of each component overlap with those recited in claim 1 on appeal, with the exception that Bernhard does not teach the use of germanium (Answer, pages 5-6). The examiner finds that Rateau teaches the addition of 0.5 to 3% by weight germanium to a silver-copper alloy to improve the hardness of the resulting composition (Answer, page 6). From these findings, the examiner concludes that it would have been obvious to one of ordinary skill in the art to add germanium to the alloy of Bernhard for improved hardness as taught by Rateau (*id.*). We agree.

Appellant argues that the combination of references does not teach the addition of trace amounts of germanium to a complex silver alloy (Brief, paragraph bridging pages 4-5). Appellant argues that Rateau teaches only the use of "large quantities of germanium" in a silver-copper alloy comprised of only the two base metals silver and copper (Brief, page 5).

Appellant's arguments are not persuasive. As correctly argued by the examiner (Answer, page 7) and admitted on page 1 of appellant's Reply Brief, Rateau teaches the addition of germanium in amounts that substantially overlap those required by the claims (see claim 1 vs. Rateau, page 3, ll. 3-4). Furthermore, Rateau teaches addition of the germanium to harden a silver-copper alloy while the alloy of Bernhard comprises predominantly silver and copper, with only small amounts of silicon, boron, zinc, and tin (Bernhard, col. 2, ll. 24-29). Due to the similarities in the alloy compositions and similar uses of Rateau and Bernhard, it would have been expected by one of ordinary skill in the art that the addition of germanium would be beneficial for the advantage of improved hardness. *See In re Vaeck,* 947 F.2d 488, 493, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991). As correctly stated by the examiner (Answer, page 9), appellant has not provided any factual basis for the allegation that it is "well known" that the addition of an alloying metal to a base metal composition which contains other additives may not necessarily have the same result as the addition of the same alloying metal to the base metal alone (see the Brief,

page 5).[1] Appellant does refer to the Declaration under 37 CFR § 1.132 by Bernhard (copy attached to the Brief) as support for the alleged "lack of predictability" (Brief, page 6). However, as noted by the examiner (Answer, paragraph bridging pages 9-10), no such support can be found in the Bernhard Declaration and appellant has not pointed to any specific page and line.

Appellant argues that Rateau teaches away from the use of silicon in silver alloy compositions because silicon is insoluble in silver and thus results in brittle alloys (Brief, page 6). This argument is not well taken since Rateau merely teaches the differing effects of silicon and germanium in silver-copper alloys, while also teaching the addition of germanium to ensure that the alloy does not become brittle, thus teaching the use of both silicon and germanium (Answer, page 10, citing Rateau, page 3, ll. 26-29).

For the foregoing reasons and those set forth in the Answer, we determine that the examiner has established a *prima facie* case

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[1]Appellant cites a reference in support of this contention on page 2 of the Reply Brief but fails to make this reference of record. Furthermore, the quoted portion of this reference does not support appellant's contention that the teaching of Rateau should not be applied to the similar silver-copper alloys of Bernhard, i.e., that minor amounts of silicon and zinc additives render the teachings of a germanium additive in Rateau "unpredictable."

of obviousness in view of the reference evidence. Appellant has submitted objective secondary evidence of commercial success to rebut any *prima facie* case of obviousness (Brief, pages 6-10). Therefore we must review the evidence of obviousness against the evidence of non-obviousness and determine whether a preponderance of evidence weighs for or against patentability. *See In re Oetiker,* 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

Appellant relies upon the Declaration of Bernhard attached to the Brief but also refers to previous Declarations by Bernhard (Brief, page 7). We adopt the examiner's well reasoned analysis of all of these Declarations (Answer, pages 10-16). We add the following comments for emphasis and completeness.

Even assuming that appellant had sufficiently demonstrated commercial success, that success is relevant in the context of obviousness only if there is evidence that the sales were a direct result of the unique characteristics of the claimed invention, and not the result of other economic and commercial factors unrelated to the quality of the claimed subject matter. *See In re Huang,* 100 F.3d 135, 140, 40 USPQ2d 1685, 1689 (Fed. Cir. 1996). No such evidence has been presented in this Declaration. We also note that the Bernhard Declaration is in error when stating that Rateau

teaches "only silver copper alloys incorporating large concentrations of germanium," thus concluding that the product of Rateau would have such an increased cost that it would negate any real commercial value of the alloy (Declaration, page 5, second full paragraph). See the Answer, page 7.

For the foregoing reasons and those stated in the Answer, based on the totality of the record, we determine that the preponderance of evidence weighs most heavily in favor of obviousness within the meaning of section 103(a). Accordingly, we affirm the examiner's rejection of the claims on appeal under 35 U.S.C. § 103(a) over Bernhard in view of Rateau.

The decision of the examiner is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

CHUNG K. PAK)
Administrative Patent Judge)
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THOMAS A. WALTZ) BOARD OF PATENT
Administrative Patent Judge) APPEALS
) AND
) INTERFERENCES
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PETER F. KRATZ)
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